



NewsLetter

Week of Jan. 20, 2003

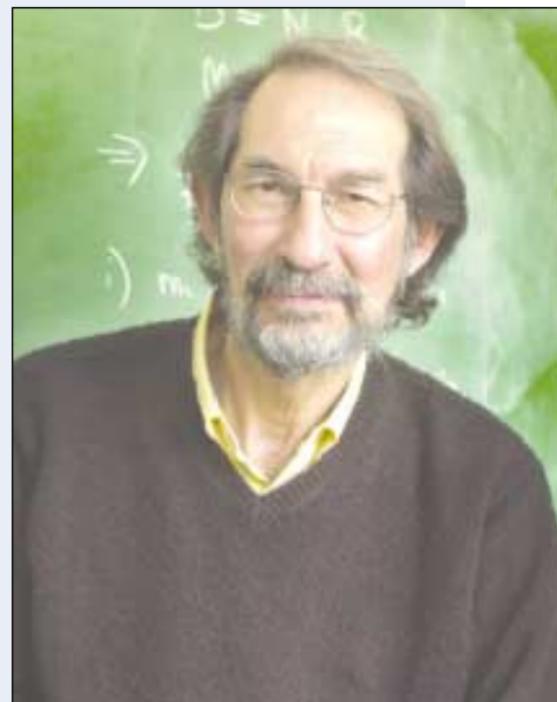
Vol. 4, No. 2



Greg Canavan



Hans Frauenfelder



Geoffrey West

Three new senior fellows named

by Edwin Vigil

The Laboratory has named three long-time Lab researchers as Senior Laboratory Fellows. They are Greg Canavan of the Physics (P) Division, Hans Frauenfelder of the Center for Nonlinear Studies (CNLS) and Geoffrey West of Elementary Particles and Field Theory (T-8).

Former Laboratory Director John Browne personally selected the three Los Alamos staff members for senior fellow recognition; they were notified in November. The honor is given to technical staff members who sustain a high level of excellence in programs important to the Lab's mission, make important scientific discoveries that lead to widespread use, or are recognized as leaders in their fields both within and outside the Lab.

"I was pleased to recognize these distinguished members of our technical staff," said Browne. "It is valuable to note some of the best researchers who serve our nation and the world with such technical and scientific excellence."

Canavan was named senior fellow for having attained national recognition for his research in the areas of remote sensing, missile defense systems and issues related to national security. "Greg's appointment to this select group of senior fellows recognizes his significant talent and expertise in those fields," said Browne.

Canavan's expertise in remote sensing for defense, civil and scientific applications has put him in demand as a technical expert and consultant to numerous private and government agencies. Canavan's many contributions to national security and defense programs include providing technical advice to Presidents Reagan and Bush on the Strategic Defense Initiative and Theater

Missile Defense initiatives. He also has consulted with industry, working with Motorola Corp. to develop their Iridium satellite-based mobile-phone system.

"His contributions to improving military science and technology and his leadership in transferring remote-sensing and communications technologies to the scientific, civilian and commercial sectors have made Greg a valuable asset to the Laboratory and to the nation, and I am very pleased to have Greg as a new senior fellow" said Browne.

Canavan joined Los Alamos in 1981 as a group leader in P Division doing research in lasers, pulse power and inertial fusion. During his two decades at the Lab, he has held leadership positions in that division as assistant and associate division leader and scientific adviser. Canavan has a doctorate and a master's degree in applied science from the University of California, Davis, as well as a master's of business administration from Auburn University and a bachelor's degree in mathematics and physics from the U.S. Air Force Academy. He is a fellow of the American Physical Society and chair of the Hertz Foundation, which supports graduate education in applied sciences.

Frauenfelder was named for his exceptional work in biological physics and for his leadership of the Center for Nonlinear Science. A leader in physics research for more than half a century, Frauenfelder came to Los Alamos in 1992 after 40 years as a professor and researcher at the University of Illinois. Frauenfelder initially worked for P Division on the development of the Los Alamos Neutron Science Center (LANSCE).

In 1995, he became the director for CNLS and has continued in that role for the past seven years.

"Since he joined the Laboratory, Hans has provided valuable leadership for the Center for Nonlinear Studies, much as he has been a leader for more than 50 years in the field of physics research," said Browne.

Recognized internationally for his research on the Mossbauer Effect and its application, as well as the study of biological physics — most notably the physics of protein — Frauenfelder has worked and collaborated with numerous colleagues from around the world. He continues that collaboration in his role as leader for CNLS.

"Hans' contributions to science have been over a broad range of fields in his work at the Los Alamos Meson Physics Facility; in the initial start-up of P Division many years ago, before he joined the Laboratory; and as director of CNLS. These are just a few of the reasons I am pleased to appoint Hans to this prestigious group," said Browne.

Frauenfelder received his doctorate in physics and his undergraduate degree from the Swiss Federal Institute of Technology in Zurich, Switzerland. Frauenfelder has been elected to the National Academy of Sciences, the American Academy of Arts and Sciences, the Academy Leopoldina and the American

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Three Laboratory Fellows Prize winners selected for 2002

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Los Alamos NewsLetter

The Los Alamos Newsletter, the Laboratory bi-weekly publication for employees and retirees, is published by the Public Affairs Office in the Communications and External Relations (CER) Division. The staff is located in the IT Corp. Building at 135 B Central

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Los Alamos National Laboratory is operated by the University of California for the National Nuclear Security Administration (NNSA) of the U.S. Department of Energy and works in partnership with NNSA's Sandia and Lawrence Livermore national laboratories to support NNSA in its mission.

Los Alamos enhances global security by ensuring safety and confidence in the U.S. nuclear stockpile, developing technologies to reduce threats from weapons of mass destruction and improving the environmental and nuclear materials legacy of the Cold War. Los Alamos' capabilities assist the nation in addressing energy, environment, infrastructure and biological security problems.



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Lab workers meet new interim director Nanos

by Michael Carlson and Steve Sandoval



Pete Nanos

Laboratory personnel on Jan. 6, many whom returned to work after an extended holiday break, met new Interim Laboratory Director Pete Nanos at an all-employee meeting in the Administration Building Auditorium at Technical Area 3.

Preceding brief remarks by University of California President Richard Atkinson and Nanos, outgoing Laboratory Director John Browne received a standing ovation. He then briefly commented on why he tendered his resignation, the importance of accountability and the importance of Lab workers maintaining their focus on the Lab's core mission of stockpile stewardship.

Browne, Los Alamos' sixth director, submitted his resignation to Atkinson in December, and it became effective Jan. 6. Browne had directed the Laboratory since 1997.

Browne, who will return to research at the Laboratory, said he felt it best that he resign to restore Lab employees' and the public's confidence in the Laboratory.

Browne thanked Lab workers for supporting him and his family and asked the Lab staff to continue doing the great science that has been a Los Alamos hallmark. "We must have great science, and we're doing well with that," said Browne.

Speaking to a full auditorium and to Lab workers watching on LABNET Channel 9 and on desktop computers, Atkinson thanked Browne for his 32 years of service to the university, calling Browne a "good person, forthright and direct."

"He has made superb scientific contributions to this nation. I can assure you [Browne] will continue to be involved in activities of the university for years to come," Atkinson added.

Atkinson also reaffirmed the university's support of the long relationship it has had with the Laboratory, but said that a cloud now hangs over UC and the Lab because of the allegations of wrongdoing, which are being investigated. He said the university should know by this spring if the Department of Energy will continue to allow UC to operate the Laboratory.

"Each of you deserves to be celebrated and recognized for your hard and honest work, and for the extraordinary science that results from it, without distraction from the allegations surrounding the Laboratory's business practices," said Atkinson. "Most of you understand the unique trust that has been bestowed upon you by the nation, and you most certainly do not deserve for that trust to be squandered because of actions by a few."

Nanos, a retired vice admiral in the U.S. Navy and previously principal deputy associate director for threat reduction, thanked Browne for his service as Laboratory director and for giving him the opportunity to return to science. He spoke for about 15 minutes before taking questions. In his talk, he mentioned that he had worked with the Laboratory on projects

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Three new senior fellows ...

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Philosophical Society. He also is the recipient of numerous prestigious scientific fellowships and honors.

West was recognized for his many contributions to the study of high-energy physics and the study of universal scaling laws in biology.

"Geoff is not only a high-energy physicist in the Theoretical Division, he also is a part-time resident faculty member at the Santa Fe Institute, and for almost three decades he has made many significant scientific contributions throughout his career," said Browne.

West's biological scaling research has involved studying the extraordinary diversity and scalability of living organisms. Looking at everything from microbes to whales, over a remarkable 21 orders of magnitude in size, West has been able to correlate how surprisingly simple scaling laws related to metabolic rate, lifespan, heart rate and size, amongst others, are universal to most organisms over the entire spectrum of life. West's research has led to breakthroughs in understanding that life at every scale, driven by natural selection, is sustained by a hierarchical, fractal-like branching network whose universal characteristics determine many of the most fundamental and universal properties of living organisms.

"Geoff's achievements reflect a caliber of science that I am most proud of, and I am delighted to have Geoff as a new Laboratory Senior Fellow," said Browne.

West was on the faculty of Stanford University before coming to Los Alamos in 1974 when he joined Los Alamos as a group leader in the High Energy Particle Physics group. West received his doctorate in physics from Stanford University and his bachelor's in physics from Cambridge University. He is a fellow of the American Physical Society and has received several honors for his work including many distinguished lectureships.

Only 15 current and former technical staff members hold the title of "Senior Fellow." Ten are retired and the other five remain active employees. In addition to the title and honor, senior fellows have an important scientific and technical role and contribute in significant ways to Laboratory programs and initiatives. Senior fellows also are called upon to provide technical advice to the director concerning new or ongoing research.

The director has sole discretion in the selection the senior fellows.



Editor's note: The following is from a Jan. 8 University of California news release.



IRS changes mileage rates for private vehicle use

The Internal Revenue Service has announced a decrease in the standard mileage rates for operating a private vehicle. The mileage rate for the use of a private automobile on official Laboratory travel has decreased to 36 cents per mile. The mileage rate for driving or shipping an automobile in connection with a move has decreased to 12 cents per mile.

To comply with this IRS change, all claims entered into the travel system on or after Jan. 1, 2003, have been processed at the new rates.

Questions regarding this change? Contact Sarah Wright-Hoffman of BUS-1 at 7-3292 or send e-mail to shoffman@lanl.gov.

Darling named interim vice president for laboratory management

University of California President Richard C. Atkinson has named longtime UC senior administrator Bruce Darling as interim vice president for laboratory management.

Darling, who currently serves as systemwide senior vice president for university affairs, will take on the additional responsibilities of overseeing the university's administration of the national laboratories UC manages for the Department of Energy's National Nuclear Security Administration.

"By making this appointment of Bruce Darling, one of my oldest and closest associates, I am sending a very clear signal that the University of California's management of the national laboratories is among my highest priorities," said Atkinson. "Bruce has been intimately involved in getting to the bottom of recent allegations surrounding business practices at Los Alamos National Laboratory, has worked closely with DOE and NNSA on these matters and has proved again and again that he is a trusted and effective manager and problem solver on a wide range of university issues. All these are the attributes I need in the vice president position at this critical time."

Darling most recently chaired a special review team of senior UC officials charged with making an independent review of the business practices and controls in place at Los Alamos. The team visited the Laboratory in November and made recommendations at that time to improve the Laboratory's business practices and then visited again in December to understand the facts surrounding various allegations related to the dismissal of two Laboratory investigators.

Darling, 50, replaces John McTague, whose retirement was effective Jan. 6. McTague is returning to UC Santa Barbara, where he is professor of materials. A nationwide search will be conducted for a permanent vice president for laboratory management.

Darling joined UC in 1980 after six years at the National Science Foundation. When Atkinson was chancellor at UC San Diego, he named Darling a special assistant and then vice chancellor. Darling was appointed systemwide vice president for university and external relations in 1996 and promoted to senior vice president for university affairs in May 2002.

Darling has received several scholastic and professional honors and is active in numerous professional and civic activities.

Darling graduated summa cum laude from UC Los Angeles in 1974.

Lab workers meet ...

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while still in the Navy and that was one of the factors in his decision to come to Los Alamos when offered the opportunity by Browne.

Nanos, who has a doctorate in physics, jokingly said he joined the Navy so he

wouldn't have to work in his father's factory, but acknowledged that science was one of his passions.

"I've not been disappointed," Nanos said of the high ethics of the Laboratory and its workers. "Ethics and integrity matter. Walking the walk. [Browne] has brought it to you and that's a tremendous gift. Never forget that."

He also said the Laboratory has received

a grade of "F" on its report card for its business systems and is working to erase that grade. "That F is going to turn into a passing grade," said Nanos. "The truth is, changes will be made. We will win or lose with what's in our hands. I'm going to be depending on you and on [your] adherence to the principles that [Browne] laid down.

"We have to understand that we are going to be held accountable for our business performance," Nanos continued. "This is a time of great peril and risk."

Referring to UC's long relationship with the Lab, Nanos added, "Our ability to maintain that relationship over time will depend on our performance as a Lab ... This is doable. This is not rocket science. It is all within our capability."

During a brief question-and-answer session, Nanos told workers that he wants to improve internal communications and said he plans to hold frequent meetings with Laboratory employees to keep employees apprised of what is going on "especially in this time of great stress."

Nanos also said a team has been formed to aid in enhancing internal communications and assessing the Lab's communications efforts.



Keeper of the keys

Kenneth Schlindwein, left, of Diversified Facilities (FWO-DF), facility manager for the Nonproliferation and International Security (NIS) Division, accepts the keys to the Nonproliferation and International Security Center from Jay Herzig, project superintendent for Hensel Phelps Construction, the general contractor. The 163,000-square-foot building at Technical Area 3 will house more than 400 NIS personnel. It is adjacent to the Nicholas Metropolis Modeling and Simulation Center and is substantially complete. NIS staff will likely begin moving into the NISC in March. In the interim, additional security features and final details are being installed. The groundbreaking for NISC was March 1, 2001, and it was completed on Dec. 2, 2002. The job was finished approximately seven weeks ahead of schedule and under budget, according to Bill Hamilton of the Project Management (PM) Division, NISC project director. For more information on the NISC Building, go to <http://int.lanl.gov/orgs/nis/nonproliferation/center.shtml> online.

Photo by Nancy Ambrosiano



TO YOUR HEALTH

Keep your shovel in cold storage

Anyone who has a family history of heart disease or has one or more of the major heart-disease risk factors themselves (smoking, obesity, stress, high-cholesterol level and high blood pressure), should consult his or her physician before shoveling snow. Lifting snow, in combination with the cold weather, increases the risk of a heart attack.

New management team in place for DX Division

by Jim Danneskiold

The Dynamic Experimentation (DX) Division took another major step in executing its reorganization, Division Leader Mary Hockaday said.

Hockaday and Joe Repa, principal deputy division leader, recently announced most of their new management team to DX Division employees. In addition to Hockaday and Repa, the DX management team consists of the following, with their former organizations also listed:

- Deputy Division Leader for Programs, Jay Dallman, DX-DO
- Deputy Division Leader for Operations, Lisa Woodrow, Materials Science and Technology (MST) Division
- Program Director for Nevada Operations, Ghazar (Raffi) Papazian, DX-DO
- Project Director for Dual Axis Radiographic Hydrotest facility (DARHT), Rollin Whitman, DX-DO
- Project Director for DynEx, Ed Heighway, associate director for Weapons Programs (ADWP)
- DX-1 Group Leader for Detonator Technology, Derrick Montoya, DX-1
- DX-2 Group Leader for Materials Dynamics, Robert (Rob) Dye, Polymers and Coatings (MST-7)
- DX-3 Group Leader for Hydrodynamics, Martha Zumbro, DARHT Project Office
- DX-4 Group Leader for Operations Support, Eric McNamara, Integrated Risk Analysis, Management and Communication (HSR-3)
- DX-5 Group Leader for Test Engineering, Drew Martinson, Bechtel Nevada
- DX-6 Group Leader for DARHT, Raymond Scarpetti, DARHT Construction (DX-8)
- DX-7 Group Leader for Information Management and Computer Infrastructure, Douglas Coombs, Information Management (IM) Division
- DX-8 Group Leader for DARHT Construction, Leonard Trujillo, DX-8
- Allan Anderson of the DX Division Office will serve as project leader for the Strategic Facility Plan.

The reorganization began last February when a transition task force formed to develop new organizational structures.

"Many people put in long hours to make sure all the ideas for a revitalized DX Division were thoroughly considered and the best ones were put into practice," said Hockaday. "We also worked on defining the necessary systems that are needed to operate as a division and not just as independent groups."

Last spring, the DX Transition Task Force examined workflow in the division and then analyzed a wide variety of potential organizational models.

"We looked at the strengths, weaknesses and unique characteristics of each model and its individual components, then worked out an optimized hybrid for the division," Hockaday said.

"I'm convinced that we now have an organization that will enable better research and development, increased productivity and project success and enhance operational performance," Hockaday said, adding that she appreciated all the input that she received from DX employees.

Once the new structures were announced in late July, an implementation team developed strategies for personnel, finances, operations, security and work space for each group and project within the division. Leading that team were former Environment, Safety and Health (ESH) Division Leader Dennis Erickson of ADWP and former Environmental Management (EM) Division Leader Mike Baker of DX-DO. Other issues considered by the implementation team were property and procurement, equipment, training, communications, information management and group and division governance.

Hockaday said the overall goals of the reorganization included

- fostering excellence in science and engineering;
- strengthening the foundation of operations;
- aligning resources to be more effective and focused;
- raising and broadening technical, operational, programmatic and personnel leadership levels; and
- helping to leverage resources for science.

"I can't thank the DX work force enough for the quality of work and dedication to the organization in achieving its major milestones even with the reorganization going on," said Hockaday. "I'm looking forward to working with the new management team and the DX work force to further optimize the new DX Division."

For more information about the reorganization, go to <http://int.lanl.gov/orgs/dx/transition/index.shtml> online.



Mary Hockaday

Mary Hockaday is the leader of the Dynamic Experimentation (DX) Division, which has primary responsibility for nuclear weapon component research; development and testing, with emphasis on dynamic behavior of materials; high-explosive science; shock physics; and development of energetic materials. Before being named leader, Hockaday was leader of Neutron Science and Technology (P-23). She also led the proton radiography project at the Los Alamos Neutron Science Center (LANSCE). Hockaday joined the Laboratory in 1981 as a graduate student. She holds a doctorate in physics from New Mexico State University, along with a master's degree in physics from NMSU and a bachelor's degree in physics with distinction from the University of Hawaii.



Joe Repa

Joe Repa is the principal deputy leader of DX Division. Repa previously served as program director for Nuclear Weapons Experimental Programs and program manager of Explosives and Conventional Weapons, among other leadership positions. His technical work at Los Alamos has included research in structural mechanics, explosive/metal systems, shaped charges, directional fragment warheads, warhead/target interactions and response of structures to blast. He holds bachelor's and master's degrees in civil engineering from the University of Texas.



Jay Dallman

As the deputy division leader for DX Programs, Jay Dallman will provide leadership, integration and strategic planning for DX programmatic work. He will interface with other divisions in implementing the newly created Hydrodynamic Phase Program element of the Experimental Assessment and Validation Coordination Board. Dallman joined the Laboratory in 1978 as a staff member in the former Energy (Q) Division. He has a bachelor's degree in mathematics with a physics minor from Benedictine University and master's and doctoral degrees in nuclear engineering from the University of Illinois.



Lisa Woodrow

Lisa Woodrow is the new deputy division leader for DX Operations. Woodrow will lead the development of policies and a framework for division operations and provide oversight and integration for division activities, with a primary focus in the areas of quality assurance, conduct of operations, authorization basis, safety and security. Woodrow joined the Laboratory in 1984 as an industrial hygiene graduate research assistant. She has a bachelor's degree in industrial safety engineering from Indiana University of Pennsylvania, a master's in industrial hygiene from Texas A&M University and a master's of business administration from the University of New Mexico.



Raffi Papazian

Raffi Papazian is the project director of Nevada Activities. He will provide the leadership and management oversight for all Los Alamos activities at the Nevada Test Site. This includes the direction of the programmatic responsibility for subcritical and dynamic experiment development. He has participated in program development and strategic planning efforts, interacted with agencies and led the authorization-basis documentation for subcritical experiments. As test director, Papazian led the execution of three subcritical experiments. His areas of expertise included structural modifications, optical alignment of complex structures and features, and harsh-environment vacuum system installation. He also is expert in experimental hardware installations and exotic radiation-shielding schemes. He has a bachelor's degree in mechanical engineering from the University of Miami.

**Rollin Whitman**

Rollin Whitman is the project director of DARHT (dual-axis radiographic hydrotest) facility. Whitman is leading a diverse team from four national laboratories (LANL, Lawrence Livermore and Berkeley national laboratories and the Massachusetts Institute of Technology Lincoln Laboratory) in the completion of the final phase of the construction and on into the commissioning and operational phases of the second axis of DARHT. Whitman has been at Los Alamos for

more than 26 years as a technical staff member and then as a manager. Whitman has spent almost his entire career at Los Alamos within DX Division and its predecessor divisions. His team was — and is — the prime developer and user of quantitative radiographic image analysis tools that are principally used for analysis of flash X-ray radiographs of simulant nuclear and conventional weapons systems. He has a bachelor's degree in engineering from the University of Wisconsin and a master's in engineering from the University of Colorado.

**Edward Heighway**

Edward Heighway is the new project director of the DynEx Project, a critical element in weapons certification. He brings more than 30 years of experience in research, project management and team leadership. Heighway worked at the Atomic Energy of Canada Chalk River Laboratory from 1970–85 in medical accelerator development and in the design and construction of the first-of-a-kind superconducting-heavy-ion cyclotron. He came to Los Alamos in 1985 to

project roles within the SDI Neutral Particle Beam Program. Heighway entered the weapons program through the Physics Division as program coordinator and acting deputy director, then moved to the Nuclear Weapons Experimental Program as deputy program director. He comes to DynEx from his position as principal deputy associate director for Weapons Physics. He has a bachelor of science degree in physics from Queen's University of Belfast and a doctorate in nuclear physics from Queen's University at Kingston, Ontario, Canada.

**Derrick Montoya**

Derrick Montoya is the new group leader for Detonator Technology (DX-1). He brings extensive and practical experience in all aspects of detonator systems to his new post. Montoya has been associated with the group since 1985, when he worked in the Laboratory as a summer student. In 1992, he joined the group as a staff member in charge of advanced development efforts and served as lead support engineer for numerous experimental projects. He was named

deputy group leader of DX-1 in November 1997. Montoya has both a bachelor's and master's degree in mechanical engineering from New Mexico State University.

**Robert Dye**

Robert Dye is the group leader for Materials Dynamics (DX-2). Dye has had more than 12 years' experience in the management and administration of technical programs. He has served as a project leader for the Joint Department of Defense/Department of Energy Munitions Technology Program, deputy group leader for Polymer and Coatings (MST-7) and, most recently, has spent two years as vice president and chief technical officer at Technanogy, LLC, while on entrepreneurial leave. Dye has a

bachelor's degree in chemistry from Central Missouri State University and a doctorate in physical chemistry from the University of Nebraska.

**Martha Zumbro**

Martha Zumbro is the group leader for Hydrodynamics (DX-3). She joined the Laboratory in 1977 as a researcher at the Los Alamos Meson Physics Division. She was deputy group leader of MP-6 (now Accelerator Operations and Technical Support [LANSCE-6]) from 1988 to 1991. From 1991 to 1999, Zumbro served as the MP-6 group leader. In 1999, Zumbro joined DX as DARHT's integration project leader. Simultaneously, she worked on DARHT's transition from construction to

operation. In April 2002, she was appointed deputy project director for DARHT. She has extensive project management experience through the Proton Storage Ring Upgrade Project at LANSCE and the DARHT Project

Office. Zumbro has a bachelor's degree in chemistry from Hardin-Simmons University, a master's in mathematics from Auburn University and a doctorate in nuclear/inorganic chemistry from Florida State University.

**Eric McNamara**

Eric McNamara is the group leader for Operations Support (DX-4). Since coming to the Laboratory in 1992, he has been a project leader, program manager, deputy group leader and, most recently, acting group leader of the Health, Safety and Radiation Protection (HSR) Division's Risk Analysis Group. He has a bachelor's degree in mathematics from the U.S. Naval Academy, a master's in nuclear engineering/health physics from the University of New Mexico and a mas-

ter's in business administration from Heriot-Watt University.

**Drew Martinson**

Drew Martinson is the group leader for Engineering (DX-5). Martinson joins Los Alamos after working at Bechtel Nevada, where he had more than 20 years' experience in the nation's nuclear weapons program. He has held a variety of positions in his career including senior project manager of the Laboratory's experimental program in Nevada for Bechtel Nevada and special measurements department manager for EG&G in Las Vegas, Nev. He holds a

bachelor's degree in electrical and electronic engineering from North Dakota State University.

**Raymond Scarpetti**

Raymond Scarpetti is the group leader for DARHT (DX-6). Scarpetti joined the Laboratory in September 2002 as a member of the DARHT team. Before joining the Laboratory, he worked at LLNL for 24 years, where he supported the Hydrodynamics Test Program. As the project leader for the flash X-ray 16-MeV induction linear accelerator system (FXR), he was responsible for operation, maintenance and multiple hardware upgrades, as well as optimization of the

FXR X-ray output. Scarpetti is committed to collaboration between laboratories at both a national and an international level. He has worked in France with the Commissariat A L'Energie Atomique on the Accelerator Induction Radiographic Imaging Experiment (AIRIX) Project. He has a bachelor's in nuclear engineering and physics and a master's in electrical engineering, both from Rensselaer Polytechnic Institute in New Jersey.

**Douglas Coombs**

Douglas Coombs is the group leader for Information Management (DX-7). Coombs joined the Laboratory in 1987 as a staff member in the former Administrative Data Processing (ADP) Division (now Information Management Division). In 1989, Coombs transferred to Personnel Services (now Human Resources) Division, where he performed extensive systems analysis that resulted in applications written in R:Base, Visual Basic, Perl and Access. He utilizes

information systems (databases) to help manage problems. He helped administer UNIX, Novell and Windows file servers; Web servers; database servers; and print servers. His most recent position is as office leader of the Information Technology Liaison Office (HR-ITL). He holds both bachelor's and master's degrees in management information systems from the University of Arizona.

**Leonard Trujillo**

Leonard Trujillo is the group leader for DARHT Construction (DX-8). Since joining the Laboratory in 1972, Trujillo has been involved in all aspects of project engineering and project management. On two occasions, he served as acting deputy group leader for DX-8. As team leader and work-package manager during DARHT Phase I and Phase II construction, he was responsible for the overall design and deployment of a complex control/diagnostic system and associated schedule

and budgetary estimates, as well as schedule compliance. Trujillo also has had experience at the Department of Energy's Hanford facility as project engineer, a post that required interagency collaboration and responsibility for a design-and-install team. He has an associate of science degree in electrical engineering from New Mexico State University.



Belinda Pedilla

Padilla chosen one of New Mexico's top technology leaders

Belinda Padilla of the Technology Commercialization Office (IBD-TCO) was named one of the "top 25 techies" in New Mexico and "40 under 40" up-and-coming business leaders by New Mexico Business Weekly.

Padilla was recognized for a program she helped to create that transfers technology out of the Lab and into the marketplace by providing the support and the network to launch high-tech start-up companies. Padilla has worked with more than 50 Northern New Mexico companies and 120 clients. "I'm honored to be recognized among such a great group of people. I love what I do and I guess it shows," she added.

Padilla came to the Laboratory in 1993. Her career includes positions in the former Chemical Science and Technology (CST) Division and Environmental Management Program Office (EMPO), where she marketed and facilitated the commercialization of their respective technologies to the private sector. She currently serves as team leader of TCO.

Padilla has been honored as a Future Leader of New Mexico by the Santa Fe New Mexican, as well as being the recipient of the

Laboratory's Distinguished Performance awards in the individual and large-team categories and Laboratory Achievement awards.

Padilla has a bachelor's of business administration in marketing and a master's degree in business administration from the University of New Mexico.

Optical Society of America elects Peterson a Fellow

Otis "Pete" Peterson of Advanced Chemical Diagnostics and Instrumentation (C-ADI) has been elected a Fellow of the Optical Society of America.

He was cited for his discovery in the 1970s of the continuous wave dye laser and his contributions to the development of wave-length-tunable solid-state lasers.

The Optical Society of America was founded in 1916 to "increase and diffuse the knowledge of optics," and its 14,000 members are spread around the globe. Of those members, only seven percent are Fellows.

The Society produces publications, events and services intended to advance the science of light by sharing knowledge and innovation.

In addition to his work with lasers, Peterson is a polymathic physicist whose current research interests run the gamut from the development of novel nuclear reactors to X-ray crystallography. He has been with Los Alamos since 1979.



Otis "Pete" Peterson



Pete Lyons

Lyons named Fellow of American Physical Society

Pete Lyons, a Laboratory technical staff member now on assignment to U.S. Sen. Pete Domenici, R-N.M., has been elected a Fellow of the American Physical Society.

Lyons, a longtime Lab employee, has been on assignment to New Mexico's senior senator as adviser on science and technology issues since January 1997. The assignment, unless extended, is scheduled to end Dec. 31.

Lyons was selected as a Fellow by the organization's council at its November meeting. The certificate accompanying his selection reads: "For outstanding contributions to science policy in the United States; exemplary leadership in management of research and development at Los Alamos National Laboratory; and significant, wide-ranging research on optical fibers."

The APS Fellowship Program was created to recognize members who have made advances in knowledge through original research and publication or made significant and innovative contributions in the application of physics to science and technology.

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BUS procurement personnel recognized for working with small businesses

Thirty-five Laboratory procurement personnel in the Business Operations (BUS) Division were recognized for outstanding contributions to the Laboratory's 2002 fiscal year socioeconomic business achievements.

The employees were lauded for directing Laboratory business to small-business owners and operators in the region and across the country, including companies who are HUB-zone certified, according to Rich Marquez, associate director of administration.

"As you know, the Laboratory's socioeconomic business program is highly visible because it directly contributes to the nation's economy," Marquez told the 35 BUS employees. "It is particularly gratifying to take pride in and to recognize our excellent accomplishments and the people who make them happen."

The Lab workers recognized are part of procurement teams within Procurement (BUS-4). They are

- Team 1: Bob Holder, Florence Serna, Elena Fuentes, Sulema Martinez, Donna Schneider, Ruby Valdez and Dave Barsness
- Team 2: Annette Houston, Barbara Wolf, Della Martinez, Angelina Gonzales, Ternel Martinez and Vanessa Bird
- Team 3: Warren Finch, Pia Griego-Romero, Mike Boule, Edith Trujillo, Susan Watkins and Barbara Lopez
- Team 4: John Hernandez, Mark Backus, Steven Lopez, Barton Burson, Patsy Sylvester and Steven Lopez
- Team 4: John Hernandez, Roxanne Calvert, Ted Williams, Michele Lucero, Nancy Williams and Toby Lucero
- Team 5: Eppie Trujillo, Lorraine Lucero, Chris Fresquez, Mary Agnes Lujan, Vangie Trujillo and Jesse Castanon
- Team 6: Tony Pace, Kathryn De Lima, Grace Gomez, Pam Garcia, Seth Hinshaw and Mabel Jaramillo

In Memoriam

Jean (Frame) Smith

Jean (Frame) Smith, 78, a resident of Yuma, Ariz., for more than 10 years, died Dec. 28, 2002. Smith came to Los Alamos in 1946 and began working at the then-Los Alamos Scientific Laboratory that same year and retired in 1979. Smith worked in then-Nuclear Plate Technology (P-10), Material Development (WX-5), Critical Assemblies — Weapon Neutronics (N-2), Weapon Physics (later Physical and Chemical Properties of Weapon Materials) (W-7) and Employment (PER-1). She is survived by her husband, Laboratory retiree Robert E. Smith (Chemistry — Metallurgy "Baker," CMB). She also is survived by her daughter Kandy Frame of Tritium Science and Engineering (ESA-TSE). In addition she leaves sons Kerry Frame, Salt Lake City; Kris E. Frame, Seattle; and step-daughters Terry FitzPatrick, Los Alamos; and Stephani Bowman of Laramie, Wyo. Her first husband, Roy Frame, preceded her in death. He also was a Laboratory retiree and worked on the Rover Project.

A memorial service in Los Alamos is pending. A memorial service was held in Yuma, Ariz., Jan. 2. In lieu of flowers, memorial contributions may be made to The American Lung Association or a charity of your choice.



January service anniversaries

35 years

Darrel Farmer, ESA-FM-ESH
Anthony Montoya, EES-DO

30 years

Ira Agins, CCN-18
Elizabeth Byrd, BUS-3
Dennis Erickson, ADO
Michael Garcia, NIS-10
R. Ronald Geoffrion, AA-2
Robert Hardekopf, SNS-DO
Chester Painter, P-23
J.F. Rodriguez Jr., HSR-4
Juanita Salazar, STB-DSTBP
Gary Salzman, D-3
Darryl Holm, T-7
Rhonald Keinigs, X-4

25 years

Joseph Banar, C-INC
John Booth, LANSCE-8
David Broxton, EES-6
Helga Christopherson, HR-DO
Rickey Faehl, X-1
Marilyn Halbig, NIS-3
Sandra Hull, D-2
Marie Kaye, CCN-5
Josephine Rael, BUS-3
David Melton, E-ET
Stewart Mosso, X-3
C. Randall Mynard, EES-10
Gregory Nunz, NIS-RD
Paul Roybal, P-22
Tom Sedillo, P-24
Thomas Seed, X-5
Jack Simpson, NMT-8

Joseph L. Thompson, CCN-DO
Judy Velarde, BUS-1
Victor Vigil, LANSCE-2
Duane Wallace, T-1
Richard Yactor, DX-1

20 years

Brent Burtschell, FWO-SEM
Daniel Comstock, IM-3
Keith Despain, X-2
Yolanda Galvez, STB-DSTBP
Cynthia Hills, NIS-8
Douglas Hof, C-FM
John Keady, T-4
Ross Lemons, MST-DO
Lori Padilla, ESA-FM-ESH
Daniel Pappas, NMT-14
Irina Velarde, NMT-3
C. Philip Wood, CCN-5

15 years

Richard Fortson, CCS-3
Kenneth Fuller, NIS-4
Timothy Hayes, NMT-4
Joel Katz, MST-6
Robert Kraus Jr., P-21
Francis Lamb, NMT-3
Lolita Lawson, ADWEM
Lorraine Lucero, BUS-5
Eva Martinez, EES-9
Jeanette Martinez, NMT-5
Roger Pynn, ADSR
Philbert Romero, HSR-5
Harry Rosenblum, NIS-9
Boris Rosev, FWO-CFS
Patrick Ruminer, MST-NHMFL
George VanTiem, S-8

10 years

Christina Archuleta, S-DO

Michael Caffrey, NIS-3
John Davey, MST-11
Denise Derkacs, ADWEM
Christopher Fontes, X-5
Patricia Fierro, CER-20
Marion Hutton, CER-20
Bryan Lally, CCS-2
Anthony Lombardo, C-ACT
Catherine Macken, T-10
Roman Movshovich, MST-10
Cynthia Phillips, IM-1
David Powell, FWO-SEM
Mohini Rawool-Sullivan, NIS-6
Pratap Sadasivan, D-10
Bradley Schake, NMT-15
Joan Williams, BUS-2
Giday Woldegabriel, EES-6
Blake Wood, X-2

5 years

Pamela Bivens, STB-EPO
Lawrence Drake, C-AAC
Andrew Espinoza, ESA-WR
Anna Flores, NMT-2
George Kaschner, MST-8
Carla Kuiken, T-10
Thomas Locke, HSR-2
James Lounsbury, S-8
Patrick Martinez, C-AAC
John Quintana, DX-4
Robert Roback, E-ET
Peter Stark, C-ACT
Phyllis Tapia, EES-8
Denise Thronas, NMT-9
Raymond Trujillo, BUS-4
Robert Valdiviez, LANSCE-1
Anton Vidlak, ESA-WSE
Barry Warthen, P-22
Jonathan Workman, P-24

Lyons ...

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Lyons received a bachelor's degree in physics from the University of Arizona in 1964 and a doctoral degree, also in physics, from California Institute of Technology in 1969. He joined the Laboratory in July 1969.

Before joining Domenici's office, Lyons directed the Lab's former Industrial Partnership Office, now the Industrial Business Development (IBD) Office. He also has held several other posts at the Lab, has published more than 100 technical papers, holds three patents and has participated in and chaired numerous national and international conferences.



Jim Angelo

From 1988 to 1991, Angelo served as commander of the USS Augusta, a nuclear-powered attack submarine. Before receiving that commission, Angelo was executive officer of the USS Alabama, a Trident-class ballistic missile submarine.

Angelo selected to lead Performance Surety Division

Jim Angelo is the leader of the Performance Surety (PS) Division.

The Performance Surety Division, established earlier this year, assists Laboratory management in developing integrated systems and services that facilitate accomplishing the Laboratory's national mission in a safe, secure and efficient manner.

Angelo is a former nuclear submarine commander for the U.S. Navy. Before he joined the Lab, Angelo spent nine years in management positions at the Pantex Facility in Amarillo, Texas.

"We are pleased to have Jim Angelo at Los Alamos," said Jim Holt, the Laboratory's associate director for Operations. "Jim's extensive experience and knowledge in the areas of program manufacturing and operations management make him ideally suited to meet the challenges ahead."

Angelo holds a bachelor's in mathematics from the U.S. Naval Academy in Annapolis, Md., and a master's of science degree from Southern Methodist University in Dallas, Texas.

This month in history ...



January

45 B.C. — New Year's Day is celebrated on Jan. 1 for the first time in history as the Julian calendar takes effect.

1825 — The first engineering college in the United States, the Rensselaer School in Troy, New York, opens to a class of 10 students.

1917 — American forces are recalled from Mexico after nearly 11 months of fruitless searching for Mexican revolutionary Pancho Villa, who is accused of leading a bloody raid against Columbus, New Mexico.

1939 — Niels Bohr publicly announces the discovery of fission at an annual theoretical physics conference at George Washington University in Washington, DC. *

1943 — "Project Y," the code name for Los Alamos military headquarters, is set up in the Bishop Building on East Palace Avenue (across the street from the current Palace Restaurant) in Santa Fe.

1943 — The final diplomas are given by the Los Alamos Ranch School and are awarded to Collier W. Baird and Stirling Colgate, then of New Jersey, and William Edgar Barr and Theodore Spencer Church of New Mexico.

1944 — George Kistiakowsky arrives at Los Alamos to assist Seth Neddermeyer in implosion research. It becomes increasingly clear that Neddermeyer's academic research style is unsuited to directing a rapidly expanding research and engineering program. *

1944 — An implosion theory group is set up with Edward Teller as head.*

1945 — The first full-scale "hot" unit was assembled in the Lab's V Site (a small section of S Site near the explosives casting complex) Building 516 (later known as the TRINITY assembly building). The then-X-6, Assembly and Assembly Tests Group, had responsibility for high-explosives operations. Individual lenses had to be inspected for defects, milled, varnished and then assembled and disassembled to check for fit. Al Van Vessel, Philip Dailey and others in the group subjected lenses to shock, rough handling, transportation and cold tests before the full-scale "hot" unit assembly.

1967 — A launch-pad fire during Apollo program tests at Cape Canaveral, Fla., kills astronauts Virgil "Gus" Grissom, Edward H. White II and Roger B. Chafee. An investigation indicates that a faulty electrical wire inside the Apollo 1 command module is the probable cause of the fire. The astronauts were the first Americans to die in a spacecraft.

1997 — The Lab consolidates several organizations at TA-53 into LANSCE Division, forming national and Lab projects for the Accelerator Production of Tritium Project.

2001 — Energy Department and University of California extend management contracts for Defense labs. DOE, the National Nuclear Security Administration and the University of California agree on new management and operations contracts for two of the Energy Department's defense labs, Lawrence Livermore and Los Alamos. The move expands and strengthens the contracts' requirements, and extends them for a three-year period to Sept. 30, 2005.

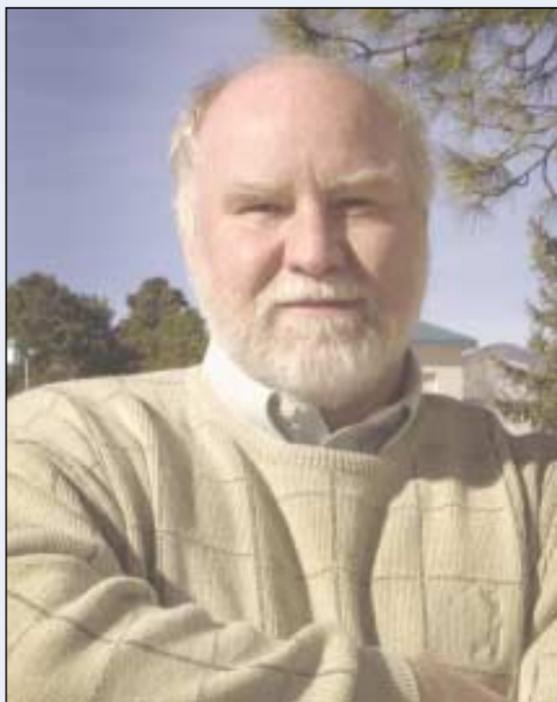
And this from the January 1964 Los Alamos Scientific Laboratory's Atom:

"A new program of post-doctoral appointments for one or two years for young scientists and engineers has been announced by the Laboratory Director's Office. Appointments will be open to selected young men and women, preferably in the 25-to-30-year age bracket, who have received the PhD. degree within the three years immediately preceding the appointment. They must be U.S. citizens and must be granted an AEC Q clearance in order to qualify."

*Carey Sublette, *Nuclear Weapons Frequently Asked Questions*, http://www.childreofthemanhattanproject.org/MP_Misc/atomic_timeline_2.htm



Carole Burns



Robert Hixson



Roman Movshovich

Three Laboratory Fellows Prize winners selected for 2002

by Kathryn Ostic

Carole Burns of the Chemistry (C) Division, Robert Hixson of High Explosives Science (DX-2) and Roman Movshovich of Condensed Matter and Thermal Physics (MST-10) are the recent recipients of the 2002 Laboratory Fellows Prize.

Burns, Hixson and Movshovich will be honored at a Fellows Prize colloquium later this year. The honorees will give a 15-minute presentation summarizing their prize-winning research and will receive a \$3,000 check and certificate. The colloquium will be open to all Lab personnel.

The Fellows Prize recognizes high-quality published research in science and engineering that has a significant impact on a particular field or discipline.

A committee of Laboratory Fellows reviews nominations for the award. Nominees must be full-time Lab employees; however, fellows and postdoctoral researchers are ineligible for consideration. The committee received 11 nominations in 2002.

Burns was recognized for her outstanding contributions to the understanding of metal-ligand multiple bonding in organometallic chemistry of actinide elements. Her contributions as an intellectual leader of this research have resulted in theorists and experimentalists rethinking long-held paradigms about the reactivity, structure and bonding of f-series elements. She has single-handedly systematized the study of complexes bearing metal-ligand multiple bonds which opens up a new area in actinide chemistry that involves reactive uranium imido complexes.

"I'm deeply honored by this award. I believe the award is a recognition of the combined efforts of the incredibly talented postdocs, students and collaborators that I've had the privilege to work with in the Los Alamos actinide chemistry community," said Burns.

Burns earned a doctoral degree in inorganic chemistry from the University of California at Berkeley in 1987. She graduated *summa cum laude* with a bachelor's degree in chemistry from Rice University in Houston.

Burns is a technical reviewer for the Department of Energy, National Science Foundation, American Chemical Society and for European journals. She participates as an external reviewer for doctorate thesis committees for the University of British Columbia and the University of New Mexico. She also is a member of the American Association for the Advancement of Science and the American Chemical Society. She was awarded the Los Alamos National Laboratory Women's Diversity Working Group Women's Career Development Mentoring Award in 2002.

Hixson was selected for his seminal contributions to the understanding of dynamic properties of plutonium and explosives materials, which have been critical to the success of stockpile stewardship. His pioneering work of applying shock-wave diagnostic techniques to explosives has led to a new understanding of the behavior of high-explosive detonation products.

"I'm happy to accept the Fellows Prize on behalf of myself and my many co-workers, all of whom were instrumental in this research

effort. The efforts of our team have resulted in an increased understanding of dynamic properties of many relevant materials," he said.

Hixson earned his doctorate in physics from Washington State University in 1980. He has a master's degree in physics from the College of William and Mary and a bachelor's degree in physics from California State University at Hayward.

He is a member of the American Physical Society and served as chairman for the Shock Physics conference in 1999, Directors Advisory Group and Ad Hoc Steering Committee for the Institute for Shock Physics at Washington State University. Hixson was awarded the DOE Award of Excellence for the Rebound experimental team in 1997 and was the recipient of a Los Alamos Distinguished Performance Award in 1998.

Movshovich is acknowledged for his outstanding research in experimental low-temperature condensed-matter physics and, in particular, for his research on unconventional superconductivity and correlated-electron physics. He performed a number of groundbreaking experiments and invented a new technique reestablishing the Lab as one of the premier laboratories in the world for research that has application in ultra-low-temperature thermal conductivity.

"I'm very happy that I am one of the winners of the Fellows Prize. Research thrives in an academic atmosphere, and this prize is a testament to the work of a tightly knit group of researchers. I am very grateful to my many co-workers and to my family members who have contributed in many different ways," said Movshovich.

Movshovich earned his doctorate in physics from Cornell University in 1990. He has a master's degree in physics from Cornell University and a bachelor's degree in applied physics from the California Institute of Technology.

He is a member of the American Physical Society. He was awarded a Los Alamos Achievement Award in 1999 and has numerous publications and invited talks to his credit.

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